

WHAT IS CLAIMED IS

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- 10036495, 010702
1. Process for the hydrogenation of a polymer  
composed of conjugated diene monomer units and a  
nitrile group-containing monomer units, in which  
hydrogenation is carried out in the presence of  
hydrazine, and an oxidizing compound, wherein the  
hydrogenation is carried out in the presence of an  
antioxidant comprising more than 6 carbon atoms  
and chosen from a derivative of a substituted  
aromatic alcohol, of dihydroquinoline, of  
benzimidazole or of an aromatic secondary amine  
whereby the antioxidant is added to the polymer  
prior to hydrogenation, with the use of NBR that  
is polymerized in the presence of an  
antidegradant being excluded.
  2. Process according to claim 1, wherein NBR is used  
as polymer.
  3. Process according to claim 1, wherein the aromatic  
secondary amine derivative is a p-phenylenediamine  
derivative.
  4. Process according to claim 1, wherein N-  
isopropyl-N'-phenyl-p-phenylenediamine is used as  
antioxidant.
  5. Process according to claim 1, wherein the  
hydrogenation is carried out in the presence of a  
compound which contains an element from group 13  
of the periodic system as catalyst, including the  
use as polymer of NBR that is polymerized in the  
presence of a polymerizable antidegradant.

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6. Process according to claim 1, wherein the hydrogenation is carried out in the presence of a metal ion activator as catalyst.
  - 5 7. Process according to claim 1, wherein the molar ratio of hydrazine compound/double bonds is between 0.9/1 and 2/1.
  - 10 8. Process according to claim 1, wherein the molar ratio of oxidizing compound/double bonds is between 0.9/1 and 2/1.
  - 15 9. Process according to claim 1, wherein the oxidizing compound is added to the reaction mixture after hydrazine.
  - 20 10. Process according to claim 1, wherein the polymer is present in the latex form.
  11. Process according to claim 1, wherein the oxidizing compound is hydrogen peroxide.
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